

WYCM 1/18/05 60304L

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Geoffrey B. Rhoads

Application No.: 09/679,262

Filed: October 4, 2000

For: ELECTRONIC COMMERCE USING  
OPTICAL INPUT DEVICE

Examiner: F. Thompson, Jr.

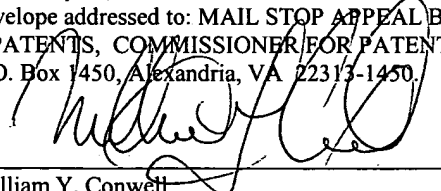
Date: January 18, 2005

Art Unit 3625

Confirmation No. 7124

**CERTIFICATE OF MAILING**

I hereby certify that this paper and the documents referred to as being attached or enclosed herewith are being deposited with the United States Postal Service on January 18, 2005 as First Class Mail in an envelope addressed to: MAIL STOP APPEAL BRIEF - PATENTS, COMMISSIONER FOR PATENTS, P.O. Box 1450, Alexandria, VA 22313-1450.

  
William Y. Conwell  
Attorney for Applicant

**TRANSMITTAL LETTER**

MAIL STOP APPEAL BRIEF - PATENTS  
COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, VA 22313-1450

Enclosed for filing in the above-captioned matter are the following:

- ☒ Appeal Brief (fee **\$500.00**)
- ☒ If an extension of time is required, please consider this a petition therefor.
- ☒ Please charge **\$500.00** (fee for Appeal Brief) and any additional fees which may be required in connection with filing this document and any extension of time fee, or credit any overpayment, to Deposit Account No. 50-3284.

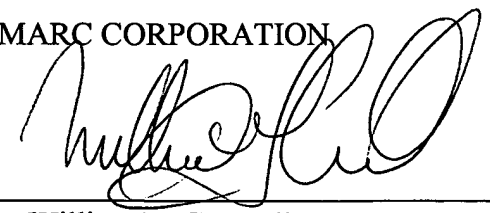
Date: January 18, 2005

CUSTOMER NUMBER 23735

Phone: 503-885-9699  
FAX 503-885-9880

Respectfully submitted,

DIGIMARC CORPORATION

By   
William Y. Conwell  
Registration No. 31,943

01/26/2005 CNGUYEN 00000012 503284 09679262

01 FC:1402 500.00 DA



Comp 60304L 1/18/05

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Geoffrey B. Rhoads

Application No.: 09/679,262

Filed: October 4, 2000

For: ELECTRONIC COMMERCE USING  
OPTICAL INPUT DEVICE

Examiner: F. Thompson, Jr.

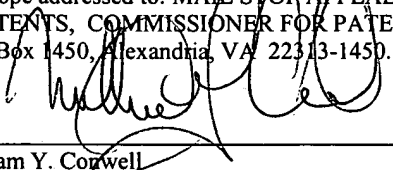
Date: January 18, 2005

Art Unit 3625

Confirmation No. 7124

CERTIFICATE OF MAILING

I hereby certify that this paper and the documents referred to as being attached or enclosed herewith are being deposited with the United States Postal Service on January 18, 2005 as First Class Mail in an envelope addressed to: MAIL STOP APPEAL BRIEF - PATENTS, COMMISSIONER FOR PATENTS, P.O. Box 1450, Alexandria, VA 22313-1450.

  
William Y. Corwell  
Attorney for Applicant

APPEAL BRIEF

Mail Stop: Appeal Brief - Patents  
COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This brief is in furtherance of the Notice of Appeal filed November 15, 2004. Please charge the fee required under 37 CFR 1.17(f), and the extension of time fee, and any other fee or deficiency, to deposit account 50-3284 (see transmittal letter).

01/26/2005 CNGUYEN 00000012 09679262  
01 FC:1402 500.00 DA

APPEAL BRIEF 09/679,262

I. REAL PARTY IN INTEREST.....	3
II. RELATED APPEALS AND INTERFERENCES.....	3
III. STATUS OF CLAIMS .....	3
IV. STATUS OF AMENDMENTS .....	3
V. SUMMARY OF CLAIMED SUBJECT MATTER .....	3
VI. GROUNDS OF REJECTION.....	6
VII. ARGUMENT.....	6
1. Claim 1.....	7
2. Claim 2.....	9
3. Claim 3.....	11
4. Claim 4.....	12
5. Claim 5.....	12
6. Claim 6.....	13
7. Claim 7.....	14
8. Claim 8.....	15
9. Claim 9.....	15
10. Claim 10.....	15
11. Claim 13.....	16
12. Claim 11.....	17
13. Claim 12.....	18
VIII.CONCLUSION.....	19

**I. REAL PARTY IN INTEREST**

The real party in interest is Digimarc Corporation, by an assignment from the inventor recorded at Reel 11486, Frames 812-813, on January 29, 2001.

**II. RELATED APPEALS AND INTERFERENCES**

None.

**III. STATUS OF CLAIMS**

Claims 1-13 stand finally rejected and are appealed.

**IV. STATUS OF AMENDMENTS**

All earlier-filed amendments have been entered.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

According to one aspect, the claimed subject matter relates to electronic shopping from a printed catalog, using steganographically encoded catalog images and earlier-stored customer profile information.<sup>1</sup>

Steganography is the science of information hiding. It encompasses a great variety of techniques by which, *e.g.*, plural bits of digital data can be hidden in some other object, without leaving human-apparent evidence of alteration or data representation.<sup>2</sup> Thus, a product photograph in a catalog can be steganographically encoded to convey data related to that

---

<sup>1</sup> *E.g.*, claim 1.

<sup>2</sup> *See, e.g.*, U.S. application 09/343,104 at page 4, lines 8-10. The '104 application was cited in the present specification at page 1, line 11, and incorporated by reference at page 1, line 12.

product.<sup>3</sup> This encoding can be detected and acted-upon by appropriate decoder systems, but is not generally perceptible to a human viewer of the image.<sup>4</sup>

According to independent claim 1,<sup>5</sup> one aspect of the invention is a method that includes:

*providing a printed catalog that includes an image of an article offered for sale by a merchant, wherein the image is steganographically encoded with plural-bit binary data;*<sup>6</sup>

*optically sensing the image to produce image data corresponding thereto;*<sup>7</sup>

*decoding the steganographically encoded data from the image data;*<sup>8</sup> and

*electronically ordering the article from the merchant by use of said decoded data,*<sup>9</sup> wherein said ordering makes use of earlier-stored customer profile information.<sup>10</sup>

In an elaboration of the claimed method, the data decoded from the catalog image can be supplemented with information corresponding to the customer (e.g., customer profile information, such as clothing size information<sup>11</sup>), and then sent to a remote merchant computer.<sup>12</sup> Such method can also include receiving order data from the remote computer, presenting same to the customer, and receiving from the customer further input selected among options included in the order data. This customer input is then transmitted to the remote computer.<sup>13</sup>

According to independent claim 6,<sup>14</sup> another aspect of the invention is a method comprising:

---

<sup>3</sup> See, e.g., specification, page 1, lines 18-19; page 2, lines 20-24.

<sup>4</sup> See, e.g., specification, page 2, lines 22-30.

<sup>5</sup> Claim 1 was included in the application as originally filed, and has not been amended during prosecution.

<sup>6</sup> See, e.g., specification, page 2, lines 13-14, 20-22.

<sup>7</sup> See, e.g., specification, page 2, lines 13, 22-25.

<sup>8</sup> See, e.g., specification, page 2, lines 13-17, 25.

<sup>9</sup> See, e.g., specification, page 3, lines 12-13.

<sup>10</sup> See, e.g., specification, page 3, lines 4-8, 15-16.

<sup>11</sup> See, e.g., specification, page 3, lines 4-8; page 4, lines 2-5.

<sup>12</sup> See, e.g., specification, page 2, lines 25-27.

<sup>13</sup> See, e.g., specification, page 2, line 28 to page 3, line 13.

<sup>14</sup> Claim 6 was included in the application as originally filed, and has not been amended during prosecution.

*providing a printed catalog that includes an image of an article offered for sale by a merchant, and machine-readable indicia representing multi-bit data associated with said article;*<sup>15</sup>

*optically sensing the indicia to produce image data corresponding thereto;*<sup>16</sup>  
*decoding the multi-bit data from the image data;*<sup>17</sup> and

*transmitting at least a portion of said multi-bit data to a first computer, together with data identifying the user;*<sup>18</sup>

*transmitting data from the first computer to a second computer, said data serving to identify the article;*

*presenting selection data from the second computer to a user, said selection data representing at least one of (a) colors, (b) styles and (c) sizes associated with said article;*<sup>19</sup> and

*receiving input from the user selecting among the presented selection data, and transmitting same to the merchant.*<sup>20</sup>

Sensing of the indicia can be performed with a peripheral device including an optical sensor and a wireless link to an associated processing device (claim 8).<sup>21</sup>

According to independent claim 10,<sup>22</sup> another aspect of the invention comprises a method that aids in selecting clothes or accessories that may complement a particular garment, e.g.:

*scanning machine-readable indicia on a tag associated with a garment;*<sup>23</sup>  
*decoding multi-bit data from said scanned indicia;*<sup>24</sup> and

<sup>15</sup> See, e.g., specification, page 2, lines 13-14, 20-22.

<sup>16</sup> See, e.g., specification, page 2, lines 13, 22-25.

<sup>17</sup> See, e.g., specification, page 2, lines 13-17, 25.

<sup>18</sup> See, e.g., specification, page 3, lines 4-8.

<sup>19</sup> See, e.g., specification, page 2, lines 28-30.

<sup>20</sup> See, e.g., specification, page 3, lines 10-16.

<sup>21</sup> See, e.g., specification, page 1, lines 25-30; page 4, lines 7-9.

<sup>22</sup> Claim 10 was included in the application as originally filed, and has not been amended during prosecution.

<sup>23</sup> See, e.g., specification, page 3, lines 22-23.

<sup>24</sup> See, e.g., specification, page 2, line 25.

*through use of at least a portion of said multi-bit data, identifying clothes or accessories that may complement said garment.*<sup>25</sup>

Certain of the complementing clothes/accessories can be presented to a user on a display screen, using a synthesized model that is also clothed in the garment (claim 11).<sup>26</sup>

## **VI. GROUND OF REJECTION**

Claims 1-6 and 9 stand rejected as obvious over Bloomberg (5,765,176) in view of Shkedy (6,260,024).

Claim 7 stands rejected as obvious over Bloomberg in view of Shkedy and further in view of O'Neill (6,219,653).

Claim 8 stands rejected as obvious over Bloomberg in view of Shkedy and further in view of Official Notice.

Claims 10 and 13 stand rejected as anticipated by Perkowski (5,950,173).

Claim 11 stands rejected as obvious over Perkowski in view of Kawahara ("Virtual Fitting Room with Spoken Dialogue Interface").

Claim 12 stands rejected as obvious over Perkowski in view of Bloomberg.

## **VII. ARGUMENT**

Bloomberg is a Xerox patent relating to management of document images by use of encoded icons.<sup>27</sup> Bloomberg does not relate to electronic ordering from a printed catalog (*i.e.*, the subject matter of claims 1-9, against which Bloomberg is applied as the primary reference).

Shkedy details a global bilateral buyer-driven system for creating binding contracts.<sup>28</sup> Like Bloomberg, Shkedy does not address electronic ordering from a printed catalog.

---

<sup>25</sup> See, *e.g.*, specification, page 3, lines 18-25.

<sup>26</sup> See, *e.g.*, specification, page 3, lines 25-27.

<sup>27</sup> Bloomberg Abstract.

<sup>28</sup> Shkedy Abstract.

Only by impermissible hindsight – supplemented by introduction of acts not taught by either reference – could the arrangements of claims 1-9 be achieved.

Perkowski, which allegedly anticipates claims 10-13, concerns a bar code system permitting a consumer to obtain additional product information in a retail store. However, Perkowski fails to teach the particular application claimed, namely identifying clothing or accessories that complement a particular garment, by reference to multi-bit data decoded from a garment tag.

1. **Claim 1**

Claim 1 is an independent method claim that concerns electronic ordering from a printed catalog:

*1. An electronic commerce method comprising:  
providing a printed catalog that includes an image of an article offered for sale by a merchant, wherein the image is steganographically encoded with plural-bit binary data;  
optically sensing the image to produce image data corresponding thereto;  
decoding the steganographically encoded data from the image data; and  
electronically ordering the article from the merchant by use of said decoded data, wherein said ordering makes use of earlier-stored customer profile information.*

The Final rejection states, “Bloomberg teaches providing a printed catalog...”<sup>29</sup>

Contrary to the Action, Bloomberg does not so teach. Bloomberg does not mention catalogs. A full text search of the patent finds no occurrence of the word “catalog.”

The Final rejection further states “Bloomberg teaches providing a printed catalog that includes an image of an article offered for sale by a merchant.”<sup>30</sup> Again, however, Bloomberg does not so teach. The reference appears to have no disclosure concerning any article offered for sale.

---

<sup>29</sup> July 14, 2004, Final Rejection, page 4, line 12 (not counting blank lines).

<sup>30</sup> July 14, 2004, Final Rejection, page 4, lines 12-13.



The Examiner cites the Abstract for these teachings.<sup>31</sup> However, the Abstract does not so teach. The Bloomberg Abstract reads:

*Encoded data embedded in an iconic, or reduced size, version of an original text image is decoded and used in a variety of document image management applications to provide input to, or to control the functionality of, an application. The iconic image may be printed in a suitable place (e.g., the margin or other background region) in the original text image so that a text image so annotated will then always carry the embedded data in subsequent copies made from the annotated original. The iconic image may also be used as part of a graphical user interface as a surrogate for the original text image. An encoding operation encodes the data unobtrusively in the form of rectangular blocks that have a foreground color and size dimensions proportional to the iconic image so that when placed in the iconic image in horizontal lines, the blocks appear to a viewer to be representative of the text portion of the original image that they replace. Several embodiments are illustrated, including using the iconic image as a document surrogate for the original text image for data base retrieval operations. The iconic image may also be used in conjunction with the original text image for purposes of authenticating the original document using a digital signature encoded in the iconic image, or for purposes of controlling the authorized distribution of the document. The iconic image may also carry data about the original image that may be used to enhance the performance and accuracy of a subsequent character recognition operation.*

Bloomberg thus has teachings concerning documents and images. However, it lacks the specific teachings of a “catalog” and “an image of an article offered for sale” required by the claim.

Because the art does not include the teachings for which it is cited, Applicant respectfully submits that the Office has failed to present a prima facie case under § 103.

The rejection of claim 1 suffers from other defects as well. For example, the Examiner proposes combining isolated teachings from unrelated references without an appropriate motivation for doing so. He argues:

*Bloomberg does not explicitly disclose said ordering makes use of earlier-stored customer profile information. However, Shkedy teaches said ordering makes use of earlier-stored customer profile information (col. 12 line 56 – col. 13 line 44). Therefore,*

---

<sup>31</sup> July 14, 2004, Final Rejection; text bridging pages 4-5.

*it would have been obvious to one skilled in the art at the time the invention was made to modify the disclosure of Bloomberg to explicitly teach said ordering makes use of earlier-stored customer profile information, as disclosed by Shkedy, for the motivation of facilitating electronic commerce between buyers and a seller.*

It will be recognized that the underlined “motivation to combine” is simply an expression of the Examiner’s hindsight reconstruction, rather than any teaching or suggestion in the art. Moreover, this “motivation” clause states an ambition so broad as to be met by myriad combinations of references. Nothing in this statement explains why an artisan would have been led to the particular arrangement defined by claim 1.

Still further, the identical “motivation” (facilitating electronic commerce) is likewise offered to justify the proposed rejection of each of claims 1-7, further evidencing its boilerplate nature. The burden on the Examiner is not met by such a generalized rote recitation.

In view of the Examiner’s failure to carry his initial burden, other points that might be made concerning the art, the rejection, and the claim, are not belabored.

## 2. Claim 2

Claim 2 depends from claim 1, and is similarly allowable. Additionally, claim 2 is independently patentable. The claim reads:

*2. The method of claim 1 in which the customer profile information includes clothing size data.*

Here the Examiner admits that neither of the cited references teaches this claim limitation.<sup>32</sup>

Notwithstanding this shortcoming, the Examiner contends that the claim is nonetheless obvious because Shkedy is said to teach “providing selected buyer information to the seller.” However, to evidence this less specific teaching, the Examiner cites 50+ lines.<sup>33</sup>

<sup>32</sup> July 14, 2004, Final Rejection, page 8, lines 10-11.

<sup>33</sup> July 14, 2004, Final Rejection, page 8, line 12 (citing Shkedy at col 12 line 56 – col 13 line 44).

*In a preferred embodiment of the present invention, communications between buyers and sellers take place via electronic networks, with central controller 200 acting as a web server. The buyer logs on to central controller 200, selects the items he wishes to purchase, accepts the maximum price given by the central controller 200 and thereby creates FPO 100, and then disconnects from the network. PPO 110 is then created and made available to potential buyers by posting PPO 110 on the webpage of central controller 200. Periodically, the central controller 200 checks the databases to determine the optimal bid on PPOs 110. Seller bids 115 are transmitted electronically to central controller 200. When the optimal bid has been determined, the central controller contacts the buyer and the seller to indicate that they are mutually bound. Central controller 200 may transfer the intermediary credit card information to the seller as soon as the optimal bid on PPO 110 has been determined.*

*With reference to FIG. 5, there is described the process by which the buyer formulates FPO 100. At step 500, the buyer logs on to central controller 200 using buyer modem 450 of buyer interface 400, establishing a communication link. It should be noted that the buyer might be an individual, a corporation, a partnership, government or any other entity. In one embodiment, central controller 200 has a page on the World Wide Web, allowing the buyer to provide information through the interface of conventional web browser software such as Netscape Navigator, manufactured by Netscape, Inc or Internet Explorer, manufactured by Microsoft. At step 505, the buyer selects the category of the goods he wants to purchase by selecting from a list of possible categories. As shown in box 507 categories might include office supplies, automobiles, computers, mutual funds, stocks, airline tickets, hotel rooms, rental cars, insurance, mortgages, clothing, etc. After the category is selected, in step 510 the buyer then selects a particular item from that category. As shown in box 512, this might be a Cross roller pen, 1997 Ford Taurus GL with A/C package, a Dell Dimension XPS R450 Pentium II Processor at 450 MHz, a Fidelity S&P Index fund, IBM stock, a flight from New York to London etc. At step 520 a form is displayed on video monitor 430 of buyer interface 400 (Note steps 505 and 510 could also be accomplished in the same way). This form is an electronic contract with selection fields and/or a number of blanks to be filled out by the buyer, with each blank representing a condition of FPO 100.*

*At step 520, the buyer enters a description of the goods. A business traveler, for example, might want to fly from first class from New York to London, leaving 10 am May 7 and returning 1pm May 12. There would be selection boxes on the form for originating city, destination city, date and time of departure, date and time of return, number of tickets, class of service, etc. The buyer simply selects his choices from the selection boxes. The buyer then adds other conditions to the blank fields.*

It is not understood what part of this passage renders obvious the "clothing size data" of claim 2. And, again, the "motivation" to combine (the same as was offered in connection with

claim 1) is insufficient.

Again, the rejection has failed to meet the Office's *prima facie* burden.

### 3. Claim 3

Claim 3 depends from dependent claim 2, and is similarly allowable. Additionally, claim 3 is patentable independently. The claim reads:

3. *The method of claim 2, further comprising:*
- (a) processing the decoded data for transmission to a remote merchant computer, said processing including supplementing the decoded data with supplemental data corresponding to the customer;*
  - (b) transmitting the processed data to the remote merchant computer;*
  - (c) receiving first order data from the remote merchant computer, responsive to the transmitted processed data;*
  - (d) presenting the first order data to the customer;*
  - (e) receiving from the user further input selecting among options included in the first order data; and*
  - (f) transmitting said further input to the remote merchant computer.*

(Labels (a) – (f) added to facilitate discussion.)

The Action alleges that Bloomberg teaches acts (a) – (c). However, the passages cited in the Action in alleged support of such statements do not teach that for which they are cited.<sup>34</sup>

For example, the Examiner contends that Bloomberg at col. 28, lines 40-51, teaches the limitations of clause (a).<sup>35</sup> However, it does not. This cited passage reads:

*The possessor of the iconic image may have certain usage rights encoded therein pertaining to the use of the original image, such as whether it can be distributed to others, whether it can be printed, and how many copies may be made. In a commercial usage rights system, an iconic image might be purchased with certain rights encoded in it to permit control over access to certain document repositories. For example, a full-size image may show an abstract or review of a longer document, article, or book. The iconic image that represents the full size image contains the usage rights the possessor of the iconic image has with respect to access to the complete document.*

<sup>34</sup> July 14, 2004, Final Rejection, pages 8-9.

<sup>35</sup> July 14, 2004, Final Rejection, page 8, last three lines.

It will be recognized that this passage does not teach the claim limitation “*processing the decoded data for transmission to a remote merchant computer, said processing including supplementing the decoded data with supplemental data corresponding to the customer.*”

The Examiner acknowledges that limitations (d) – (f) are not taught by Bloomberg, but alleges that Shkedy provides such teachings. Again, however, this is a mis-statement of fact. Despite citing about 140 lines of continuous text, Shkedy does not teach, e.g., *receiving from the user further input selecting among options included in the first order data [received from the remote merchant computer, responsive to the transmitted processed data].*”

Even if the art taught that for which it was cited (which it does not), the rejection again fails for lack of a suitable statement of motivation to combine. Again, all that is offered is the rote mantra “for the motivation of facilitating electronic commerce.”<sup>36</sup>

Again, the rejection fails to establish *prima facie* obviousness.

#### 4. Claim 4

Claim 4 depends from dependent claim 3, and is similarly allowable. Additionally, claim 4 is patentable independently. The claim reads:

*4. The method of claim 3 in which the supplemental data includes the customer profile information.*

Again, contrary to the Examiner’s assertions, the art does not teach such feature. And if it did, the offered motivation to combine (“for the motivation of facilitating electronic commerce”) is insufficient.

#### 5. Claim 5

Claim 5 stands or falls with claim 3, from which it depends.

## 6. Claim 6

Claim 6 is an independent claim directed to an electronic commerce method involving a printed catalog, particularly detailing an arrangement in which a user is presented selection data permitting selection of color, size, or style of an article:

*6. An electronic commerce method comprising:  
 providing a printed catalog that includes an image of an article offered for sale by a merchant, and machine-readable indicia representing multi-bit data associated with said article;  
 optically sensing the indicia to produce image data corresponding thereto;  
 decoding the multi-bit data from the image data; and  
 transmitting at least a portion of said multi-bit data to a first computer, together with data identifying the user;  
 transmitting data from the first computer to a second computer, said data serving to identify the article;  
 presenting selection data from the second computer to a user, said selection data representing at least one of (a) colors, (b) styles and (c) sizes associated with said article; and  
 receiving input from the user selecting among the presented selection data, and transmitting same to the merchant.*

Again, a *prima facie* rejection has not been established. For example, the Examiner again wrongly contends that Bloomberg teaches “a printed catalog that includes an image of an article offered for sale,”<sup>37</sup> when Bloomberg has no such teaching.

The Final Rejection also errs in addressing the “(a) colors, (b) styles and (c) sizes associated with said article” limitation of the claim. As to this element the Examiner contends:

*Shkedy discloses ... said selection data representing a particular item from a selected category, with a description of the goods entered by the buyer (col 13 lines 7-44), which encompasses at least one of (a) colors, (b) styles and (c) sizes associated with said article.”<sup>38</sup>*

<sup>36</sup> July 14, 2004, Final Rejection, page 10, lines 1-2.

<sup>37</sup> July 14, 2004, Final Rejection, page 10, lines 3-4.

<sup>38</sup> July 14, 2004, Final Rejection, page 13, lines 17-19.

Here the Examiner is citing an alleged generic teaching in the prior art, and impermissibly attempting to thereby “encompass” more specific details that are not taught by the reference. *Prima facie* obviousness is not thereby established.

Again, in view of the noted shortcomings that leave the rejection short of the threshold required for *prima facie* obviousness, other points that may be made concerning the rejection, the art, and the claim, are not belabored.

7. **Claim 7**

Claim 7 depends from dependent claim 6, and is similarly allowable. Additionally, claim 7 is patentable independently. The claim reads:

*7. The method of claim 6 which includes consulting earlier-stored user profile data, and customizing the selection data presented to the user in accordance with said profile data.*

The Examiner acknowledges that neither Bloomberg nor Shkedy teaches this limitation, but cites a third reference, O’Neill (6,219,653), re same.

O’Neill discloses a freight calculation system and related method of operation.

Again, the Examiner has fallen short of his burden to establish obviousness. For example, the sole explanation offered for the choosing of isolated teachings from three disparate references, and their selective jig-sawing together, is the rote rationale “for the motivation of facilitating electronic commerce.” Again, obviousness is not thereby established.

**8. Claim 8**

Claim 8 also depends from dependent claim 6, and is similarly allowable. Additionally, claim 8 is patentable independently. The claim reads:

*8. The method of claim 6 that includes sensing the indicia with a peripheral device that includes an optical sensor and a wireless link to an associated processing device.*

The Examiner acknowledges that none of the cited references teaches this limitation, but relies on Official Notice for same.

Again, the rejection fails to establish *prima facie* obviousness. Noting a shortcoming between the cited art and the claimed arrangement, and then citing Official Notice to remedy the deficiency, is an example of hindsight. The only motivation offered in support of the proposed combination is “for the motivation of expediting a purchase/choice of a product by a customer and facilitating electronic commerce.” This is circular reasoning – start with the inventor’s combination, and propose certain of the resulting advantages as motivation leading to the combination. Obviousness requires a teaching or suggestion in the *prior* art.

**9. Claim 9**

Claim 9 stands or falls with claim 6, from which it depends.

**10. Claim 10**

Claim 10 is an independent method claim that includes identifying clothes or accessories that may complement a particular garment, through a process triggered by decoding multi-bit data from a garment tag:

*10. An electronic commerce method comprising:  
scanning machine-readable indicia on a tag associated with a garment;  
decoding multi-bit data from said scanned indicia;*



*through use of at least a portion of said multi-bit data, identifying clothes or accessories that may complement said garment.*

This claim is said to be anticipated by Perkowski.

Contrary to the Examiner's assertions, Perkowski is not understood to teach "a tag associated with a garment."

The word "tag" is not found in the Perkowski specification.

The word "garment" (and "clothing") is found only twice – both in the same sentence:

*For clothing, garments, or accessories (e.g. wearing apparel), the URL list may contain a URL that points to a multi-media clip on the WWW that provides an QuickTime.RTM. video recording or the like of the clothing, garments, and/or accessories being modelled by stunning fashion models.<sup>39</sup>*

Perkowski also fails to teach "through use of at least a portion of said multi-bit data, identifying clothes or accessories that may complement said garment." (The Action cited the just-quoted language in support of this limitation.)

Because the art fails to teach each of the claim's limitations, the anticipation rejection of claim 10 fails.

#### 11. Claim 13

Claim 13 depends from independent claim 10, and is similarly allowable. Additionally, claim 13 is patentable independently. The claim reads:

*13. The method of claim 10 in which said identifying includes querying a database to obtain a mini-catalog of clothes or accessories that have previously been identified as complementing the garment.*

Again, the claim is rejected under § 102 over Perkowski. Again, Perkowski fails to teach the claim's limitations. In particular, Perkowski does not query a database to obtain a mini-

---

<sup>39</sup> Perkowski, 5,950,173, col. 21, lines 18-23.

catalog of clothes or accessories that have previously been identified as complementing the garment. Again, the Examiner's citations (Abstract; col. 5, lines 10-18; col. 24, lines 5-14) do not teach the claimed arrangement.

Again, the rejection should be reversed.

**12. Claim 11**

Claim 11 depends from claim 10, and is similarly allowable. In addition, claim 11 is independently patentable. The claim reads:

*11. The method of claim 10 that includes presenting at least certain of said clothes or accessories to a user on a display screen, using a synthesized model that also includes said garment.*

This claim is rejected over Perkowski in view of Kawahara ("Virtual Fitting Room.")

Kawahara is directed to "a novel human interface that incorporates spoken dialogue into virtual space technologies."<sup>40</sup> While it discloses a virtual fashion model, it does so in the context of a fitting room in a bricks & mortar retail clothing store, where a customer speaks to a computer, and is presented with displays of differently attired models in response. The incorporation of Kawahara's virtual model into the method of claim 10 (based, as it is, on scanning a garment tag, decoding multi-bit data therefrom, and using some of the decoded data to identifying complementing clothes or accessories) is another exercise in hindsight reconstruction.

---

<sup>40</sup> Kawahara, Abstract.

**13. Claim 12**

Claim 12 depends from claim 10, and is similarly allowable. In addition, claim 12 is independently patentable. The claim reads:

*12. The method of claim 10 in which the multi-bit data is steganographically encoded on the tag.*

This claim is rejected over Perkowski in view of Bloomberg. Again, however, the rejection fails on multiple grounds.

For one, the Examiner states “Bloomberg teaches the multi-bit data is steganographically encoded on the tag (col. 4, lines 13-31).”<sup>41</sup> However, contrary to the Examiner’s statement, the cited passage of Bloomberg does not teach steganographic encoding of multi-bit data on a tag. Rather, it simply notes that digital watermarking can be employed to imperceptibly embed codewords “in a document image.” No teaching of a tag (more accurately, a *garment* tag) is contemplated.

Moreover, the rationale offered by the Examiner for the proposed combination evidences impermissible hindsight, and fails to fulfill the Office’s *prima facie* burden. The Examiner’s explanation in support of the proposed combination states only:

*Perkowski does not explicitly teach the multi-bit data is steganographically encoded on the tag. However, Bloomberg teaches the multi-bit data is steganographically encoded on the tag (col. 4, lines 13-31).<sup>42</sup> Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Perkowski to explicitly steganographically encode the multi-bit data on the tag, as taught by Bloomberg, for the motivation of facilitating product purchases by customers.*

The paragraph lacks a cognizable explanation of why an artisan would have been led to combine the particular features from the cited references to yield the arrangement claimed. The conclusory “Therefore” leads the reader to expect some logical rigor, yet none is to be found.

<sup>41</sup> July 14, 2004, Final Rejection, page 18, last paragraph.

<sup>42</sup> Again, not so, as noted above.

The eleven-times-repeated motivation of “facilitating product purchases by customers” does not demonstrate obviousness; rather, it evidences hindsight.

### **VIII. CONCLUSION**

The rejections under § 102 fail because the art does not teach each of the claims’ limitations. The rejections under § 103 fail because the prior art references do not teach claim limitations for which they are cited, and because the Examiner has failed to present a convincing line of reasoning that would have led an artisan to find the proposed combinations to be obvious. Accordingly, the Board is requested to reverse the outstanding rejections, and remand to the Examiner for issuance of a notice of allowance.

Date: January 18, 2005

**CUSTOMER NUMBER 23735**

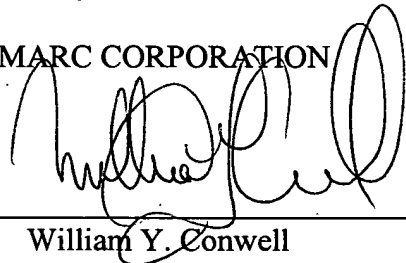
Phone: 503-469-4800

FAX 503-469-4777

Respectfully submitted,

DIGIMARC CORPORATION

By



William Y. Conwell  
Registration No. 31,943

**APPENDIX A**  
**PENDING CLAIMS**

1. An electronic commerce method comprising:  
providing a printed catalog that includes an image of an article offered for sale by a merchant, wherein the image is steganographically encoded with plural-bit binary data;  
optically sensing the image to produce image data corresponding thereto;  
decoding the steganographically encoded data from the image data; and  
electronically ordering the article from the merchant by use of said decoded data, wherein said ordering makes use of earlier-stored customer profile information.
2. The method of claim 1 in which the customer profile information includes clothing size data.
3. The method of claim 2, further comprising:  
processing the decoded data for transmission to a remote merchant computer, said processing including supplementing the decoded data with supplemental data corresponding to the customer;  
transmitting the processed data to the remote merchant computer;  
receiving first order data from the remote merchant computer, responsive to the transmitted processed data;  
presenting the first order data to the customer;  
receiving from the user further input selecting among options included in the first order data; and  
transmitting said further input to the remote merchant computer.
4. The method of claim 3 in which the supplemental data includes the customer profile information.

5. The method of claim 3 in which the supplemental data includes data identifying the customer.

6. An electronic commerce method comprising:  
providing a printed catalog that includes an image of an article offered for sale by a merchant, and machine-readable indicia representing multi-bit data associated with said article;  
optically sensing the indicia to produce image data corresponding thereto;  
decoding the multi-bit data from the image data; and  
transmitting at least a portion of said multi-bit data to a first computer, together with data identifying the user;  
transmitting data from the first computer to a second computer, said data serving to identify the article;  
presenting selection data from the second computer to a user, said selection data representing at least one of (a) colors, (b) styles and (c) sizes associated with said article; and  
receiving input from the user selecting among the presented selection data, and  
transmitting same to the merchant.

7. The method of claim 6 which includes consulting earlier-stored user profile data, and customizing the selection data presented to the user in accordance with said profile data.

8. The method of claim 6 that includes sensing the indicia with a peripheral device that includes an optical sensor and a wireless link to an associated processing device.

9. The method of claim 6 in which the presenting includes transmitting selection data from the second computer to a user computer.

10. An electronic commerce method comprising:  
scanning machine-readable indicia on a tag associated with a garment;

decoding multi-bit data from said scanned indicia;  
through use of at least a portion of said multi-bit data, identifying clothes or accessories  
that may complement said garment.

11. The method of claim 10 that includes presenting at least certain of said clothes or  
accessories to a user on a display screen, using a synthesized model that also includes said  
garment.

12. The method of claim 10 in which the multi-bit data is steganographically encoded on  
the tag.

13. The method of claim 10 in which said identifying includes querying a database to  
obtain a mini-catalog of clothes or accessories that have previously been identified as  
complementing the garment.